This section describes the agricultural resources at the project site and in the project vicinity, and the subsequent impact to agricultural resources with implementation of the proposed project. The California Department of Conservation's *California Agricultural Land Evaluation and Site Assessment Model* (LESA), as recommended in Appendix G of the CEQA Guidelines, was utilized to assess impacts of the conversion of prime agricultural land. Sources utilized to prepare this section of the EIR include the *City Morgan Hill General Plan*, *City of Morgan Hill General Plan EIR*, the *California Department of Conservation Farmland Conversion Report,* the *California Department of Conservation Important Farmlands Map,* the *Soil Survey of Eastern Santa Clara County, California*, and various other sources noted in the text.

3.2.1 ENVIRONMENTAL SETTING

The project site is comprised of rural residential uses, an equestrian facility, and year-round agricultural land that has been in production since approximately 1917. Agricultural uses at the project site include approximately 16.7 acres of dry-land grain crops; 26.9 acres of irrigated row and field crops; 7.7 acres of pasture; and 6.8 acres of vineyards. The project site has been designated for urban uses since 1969. The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Codes*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site.

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Surrounding land uses include vacant land planned for commercial uses and the De Paul Health Center (formerly the Saint Louise Hospital) located to the south; unincorporated County land currently in agricultural use, located within the City's sphere of influence designated 'Single-Family Medium' in the *City of Morgan Hill General Plan* located to the east; unincorporated County land, currently in agricultural use located within the City's sphere of influence and vacant land located within the city limits designated `Rural County´ in the *City of Morgan Hill General Plan* located to the north; and U.S. Highway 101 and the SCVWD drainage channel located west of the project site. Although the project site is primarily rural in nature, the area west of the U.S. Highway 101/Cochrane Road interchange is developed primarily with commercial uses, including the Cochrane Plaza shopping center located at the southwest quadrant of this intersection, and a Chevron Station, two hotels, two vacant restaurant pads, and the Madrone Business Park, located at the northwest quadrant of this intersection.

3.2 AGRICULTURAL RESOURCES

PRIME AGRICULTURAL LAND

Soils

The systems used by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS) to determine a soil's agricultural productivity includes the Land Capability Classification (LCC) and the Storie Index rating system. The prime soil classifications of both the LCC and the Storie Index rating system indicate the absence of soil limitations, which if present, would require the application of management techniques (e.g., drainage, leveling, and special fertilizing practices) to enhance agricultural production.

NRCS Land Capability Classification

The LCC shows, in a general way, the suitability of soils for field crops. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receiving the highest rating (Class I). Within the broad classes are subclasses which signify special limitations such as: erosion (e), excess wetness (w), problems in the rooting zone (s), and climatic limitations (c). A general description of soil classification, as defined by the NRCS, is provided in **Table 3.2-1**.

TABLE 3.2-1
LAND CAPABILITY CLASSIFICATION

Class	Definition
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove soils that limit their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitations that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.

Source: NRCS, 1974

NRCS Storie Index Rating System

The Storie Index rating system, applied by the NRCS, ranks soil characteristics according to their suitability for agriculture from Grade 1, or prime soils (80 to 100 rating) which have few or no limitations for agricultural production, to Grade 6 soils (less than 10), which are not suitable for agriculture. **Table 3.2-2** defines the grades of the Storie Index rating system. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed.

TABLE 3.2-2
STORIE INDEX RATING SYSTEM

Grade	Index Rating	Definition
1 – Excellent	80 - 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 – Good	60 - 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 – Fair	40 - 59	Soils are only fairly well suited to general agricultural use and are limited in their use because of moderate slopes; moderate soil depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 – Poor	20 - 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil textures than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or fair to poor fertility levels, all acting alone or in combination.
5 – Very Poor	10 - 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 – Nonagricultural	Less than 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Source: USDA Soil Conservation Service, Soil Survey of Eastern Santa Clara County, September 1974

According to the *Soil Survey of Eastern Santa Clara Area, California* approximately 90 percent of the project site is comprised of Arbuckle gravelly loam, 0 to 2 percent slopes (ArA) and approximately ten percent of the project site is comprised of San Ysidro loam, 0

to 2 percent slopes (SdA). The Arbuckle Gravelly loam soil series has an available water holding capacity of approximately five to seven inches and a moderately permeable subsoil. The fertility is moderate and the effective rooting depth is very deep. The Arbuckle gravelly loam soil series has a LCC of IIs and a Storie Index rating of 72. The San Ysidro loam soil series has an available water holding capacity of seven to eight inches and very slow permeable clay subsoil. Due to the clay subsoil, this soil is best suited for shallow-rooted crops. The San Ysidro loam soil series has a LCC rating of IIIs and a Storie Index rating of 51.

Important Farmland Mapping

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 by the California Department of Conservation, Division of Land Resource Protection to continue the Important Farmland mapping efforts begun in 1975 by the NRCS. The goal of the FMMP is to provide consistent and impartial data to decision makers for use in assessing present status, reviewing trends, and planning for the future of California's agricultural land resources. The FMMP produces *Important Farmland Maps* and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called 'Prime Farmland.'

According to the California Department of Conservation *Santa Clara County Important Farmland Map* (2002), the project site is designated as 'Prime Farmland.' In order to be shown as `Prime Farmland´ it must meet both of the following criteria: 1) the site has been used for irrigated agricultural production at some time during the four years prior to the Important Farmland Map date; irrigated land use is determined by the FMMP staff during examination of current aerial photos, local comment letters and field verification; and 2) the soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the NRCS. NRCS compiles lists of which soils in each survey area meet the quality criteria. Factors considered in qualification of a soil by NRCS include: water moisture regimes, available water capacity, and developed irrigation water supply; soil temperature range; acid-alkali balance; water table; soil sodium content; flooding (uncontrolled runoff from natural precipitation); erodibility; permeability rate; rock fragment content; and soil rooting depth (DOC 2005).

Williamson Act

The California Land Conservation Act (Williamson Act) was enacted by the State Legislature in 1965 as a means of preserving California's Prime agricultural lands from urbanization. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land in agriculture or related open space use. In return for entering into this contract, the landowners receive property tax relief on the lands under contract. This relief is provided through the

assessment of the lands based upon their income-producing value rather than their market value, which may be considerably higher. The contracts have a ten-year term, which are automatically renewed each year on a common anniversary date of January 1st unless they are cancelled or a notice of non-renewal is filed. The non-renewal process begins on the following anniversary with nine years remaining. During the remaining term of the contract after notice of non-renewal has been given, the property taxes increase gradually according to a formula that eventually brings them up to the same level as non-Williamson Act lands. Currently, approximately 70 percent of the state's prime agricultural land is protected under the Williamson Act. Currently, there are more than 362,704 acres of land under Williamson Act contracts in Santa Clara County. This constitutes approximately 43 percent of the land area of the County.

None of the parcels at the project site are currently under a Williamson Act contract (Personal conversation with Frank Giordano, County Of Santa Clara Assessors Office, December 2004 and May 2005).

ECONOMIC VALUE

The County of Santa Clara ranked twenty-eighth in agricultural production out of fifty-eight counties in the State in 2002 and remained the same ranking in 2003, with gross revenues from the sales of agricultural commodities totaling approximately $241 million (California Agricultural Statistics Service 2003). In 2003, the leading agricultural resources in the County included nursery crops, mushrooms, peppers, cut flowers, and cattle as seen in **Table 3.2-3**.

TABLE 3.2-3
LEADING COMMODITIES FOR GROSS VALUE OF AGRICULTURAL PRODUCTS
SANTA CLARA COUNTY, 2003

Commodities	Value
Nursery Crops	$103,979,000
Mushrooms	$46,400,000
Peppers, Bell	$10,383,000
Flowers, Cut	$9,479,000
Cattle, Steers and Heifers	$6,674,000
Grapes, Wine	$6,484,000
Peppers, Wax and Chili	$5,002,000
Vegetables, Chinese	$4,510,000
Lettuce, Leaf	$4,299,000
Onions, Dry	$3,807,000

Source: California Agricultural Statistics Service: Summary of County Agricultural Commissioners' Reports, 2002-2003.

3.2.2 REGULATORY SETTING

City of Morgan Hill General Plan

The following *City of Morgan Hill General Plan* goals and policies on agricultural resources are relevant to the proposed project.

Open Space and Conservation Element

Goal 1 Preservation of open space areas and natural features

Policy 1a Work with the County, the Open Space Authority, appropriate land trusts, and owners to preserve large open space areas, such as agricultural lands and outdoor recreation areas to conserve natural resources, and retain the city's unique identity.

Policy 1b Support agricultural uses that can preserve open space.

Goal 3 A viable agricultural industry

Policy 3b Support agricultural activity by encouraging agriculture-related industry, commercial uses, and community events within the urban area.

Policy 3g Continue to support the long-term maintenance of agricultural land uses and agriculture as an economic enterprise in the South County, since it contributes to the local economy, helps to delineate urban boundaries and is a productive use for land which is not immediately planned for urban development.

Policy 3h Take a positive action to encourage agriculture by supporting policies favorable to agriculture.

Policy 3o Plan for further urban growth to occur in areas which will avoid encroachment into agricultural lands with the greatest long-term potential to remain economically viable.

Policy 3p Convert agricultural land that has been designated for urban growth in an orderly manner to retain the stability and viability of remaining agricultural land as long as possible.

IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Standards of significance were based on existing laws and regulations affecting agricultural resources and impacts generally considered to be significant (Appendix G, State CEQA Guidelines). The California Agricultural Land Evaluation and Site Assessment Model (LESA) was used to assess the conversion of agricultural land, as recommended in Appendix G of the CEQA Guidelines. Impacts on agricultural resources were considered significant if implementation of the project would result in any of the following:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the *California Department of Conservation, Division of Land Resources, Santa Clara County Important Farmlands Map*, to non-agricultural use, unless otherwise found to be less than significant through evaluation using the LESA model;
- Conflict with existing zoning for agricultural use;
- Conflict with a Williamson Act contract; and/or
- Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use.

METHODOLOGY

Evaluation of potential agricultural impacts of the proposed project are based on review of the *City of Morgan Hill General Plan*, and field review of the project site and surrounding area. The agricultural analysis is based on information gathered from the *City of Morgan Hill General Plan*, the California Department of Conservation *Santa Clara County Important Farmlands Map* (DOC 2002), Santa Clara County Assessor Office, and the *Soil Survey of Eastern Santa Clara, California* (NRCS 1974).

PROJECT IMPACTS AND MITIGATION MEASURES

Prime Farmland Conversion

Impact 3.2-1 The proposed project would result in the conversion of approximately 66.49 acres of `Prime Farmland´ as designated on California Department of Conservation, Division of Land Resources Protection *Santa Clara County Important Farmland Map*. This is considered a **significant impact.**

3.2 AGRICULTURAL RESOURCES

As shown on the *Santa Clara County Important Farmland Map*, prepared by the California Department of Conservation, Division of Land Resources, the project site is designated as `Prime Farmland.´ Prime farmland is defined as "land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been producing irrigated crops at some time during the four years prior to the mapping date."

According to the *Soil Survey of Eastern Santa Clara Area, California* approximately 90 percent of the project site is comprised of Arbuckle gravelly loam (ArA) and approximately ten percent of the project site is comprised of San Ysidro loam (SdA). The Arbuckle Gravelly loam soil series has an available water holding capacity of approximately five to seven inches and a moderately permeable subsoil. The fertility is moderate and the effective rooting depth is very deep. The Arbuckle gravelly loam soil series has a LCC of IIs and a Storie Index rating of 72. The San Ysidro loam soil series has an available water holding capacity of seven to eight inches and a very slow permeable clay subsoil. Due to the clay subsoil, this soil is best suited for shallow-rooted crops. The San Ysidro loam soil series has a LCC rating of IIIs and a Storie Index rating of 51.

Based on the soils present at the project site and the 'Prime Farmland' designation on the Santa Clara County Important Farmlands Map, an evaluation of the agricultural resources at the project site was conducted using the California Department of Conservation's *California Agricultural Land Evaluation and Site Assessment model* (LESA), as recommended in Appendix G of the CEQA Guidelines, to determine whether or not impacts to agricultural resources at the project site are considered significant. The LESA model is included as Appendix B of this EIR.

The LESA model is a multivariate mathematical method that uses six factors to evaluate the comparative value of agricultural land. The model generates a number between one and 100, which is then compared to certain scoring thresholds to determine the value of the land for agriculture. Half of the points awarded in the LESA model are determined by the `Land Evaluation´ which includes two factors, LCC and the Storie Index rating, both of which are based on composition of soils at the project site, as discussed above. The other half of the points are awarded based on the `Site Assessment´ that includes the site's physical characteristics and the availability of water. According to the LESA methodology, a property cannot be considered significant if either the Land Evaluation or the Site Assessment sub-score is less than 20 points.

Based on the soil types that occur on the project site, the `Land Evaluation´ portion of the LESA model yields a score of 41.62 and the 'Site Assessment' portion yields a score of 21.75. The overall LESA score for the project site is 63.37. Since both the `Land Evaluation´ and `Site Assessment´ sub-score for the project site are greater than 20 points,

conversion of the agricultural land at the project site is considered significant under the LESA model. Development of proposed commercial uses and paved parking areas removes the land from agricultural production, and the affected land cannot be recreated or reproduced elsewhere. There are no feasible mitigation measures available to reduce the impact of agricultural land conversion to a less than significant impact. Therefore, the conversion of the project site to commercial/retail uses is considered a **significant and unavoidable impact.**

The project's significant and unavoidable impact to agricultural resources could be avoided by denying the project or by requiring a reduced project, which would prevent the conversion of all or a part of the project site to urban uses. However, this action would not meet the objective of the project applicant or the City of Morgan Hill of developing the project site for a commercial retail shopping center in conformance with the *City of Morgan Hill General Plan*. In addition, denial of the proposed project would not constitute a "feasible mitigation" and therefore would not be required under Section 15126.4 of the State CEQA Guidelines. The *City of Morgan Hill General Plan* contains no policies or implementation programs which require mitigation or offsets for conversion of prime farmland. Likewise, the *City of Morgan Hill General Plan EIR* does not identify measures to offset the conversion of prime farmland.

Agricultural-Urban Land Use Conflicts

Impact 3.2-2 At build-out, the proposed project would place urban land uses adjacent to agricultural uses, which may impair agricultural production and result in land use compatibility conflicts. This is considered a **less than significant impact.**

The project site is located within the city limits of Morgan Hill at the edge of the UGB, which borders the project site to the north. Limited agricultural uses occur on properties to the north and east of the project site. Potential conflicts from a commercial development located adjacent to agricultural uses includes trespassing onto active agricultural lands where crops and nursery crops are grown and littering. The potential for project impacts to adjacent agricultural operations are reduced in this case because of the urbanized nature of the project vicinity. The project site is located at the northern boundary of the City of Morgan Hill, where the potential for conflicts between urban and rural uses currently exist. Non-rural land uses in the project vicinity include residential development located to the east and southeast, the De Paul Health Center (formerly the Saint Louise Hospital), U.S. Highway 101, and commercial development located west of the highway. Agricultural operations in the area include primarily dry-land farming and greenhouse production, which are less intensive than row crop operations. These agricultural operations have already had to adjust to the intrusion of urban uses and the traffic associated with these uses.

Existing agricultural operations could potentially affect the proposed commercial/retail uses. Potential conflicts from the adjacent agricultural activities to the proposed commercial development may be dust, odors, pesticide or herbicides run-over. Plowing activities would generate dust, which could be carried to the project site. However, the potential for dust generation would occur only occasionally when fields are plowed or when bare soils are exposed under high wind conditions. The northern border of the proposed project would include two stormwater detention ponds and two large anchor stores that would essentially buffer the proposed development from existing agricultural practices to the north of the project site. A berm and screening wall located along the eastern border of the project site would also protect the project site from the effects of dust from agricultural operations located east of the project site. This effect would also be somewhat reduced because of the relative short-term exposure of customers and employees at the commercial uses at the proposed project to agricultural dust generation, pesticides, and odors in the parking lots in comparison to residential uses located to the north and east of the project site. In addition, lands to the east of the project site are located in the sphere of influence and are designated for medium density residential development in the *City of Morgan Hill General Plan*. Urban-agricultural conflicts located to the east would therefore be limited to the duration of time remaining until those lands are developed with urban uses.

Given the proximity of existing residential and commercial development in the project vicinity, aerial application of pesticides on adjacent properties would be limited because the agricultural users have already had to adjust to the intrusion of urban uses. Therefore, the potential for pesticide drift would be minimal. In light of these factors, the potential impacts due to agricultural-urban conflicts associated with the proposed project would be considered **less than significant.** No mitigation measures are necessary.

Agricultural Zoning and Williamson Act Contracts

The 66.49-acre project site is located within the city limits of Morgan Hill at the border of the urban growth boundary (UGB), which borders the project site to the north. The UGB is an officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses, including agriculture. The project site has a General Plan designation of `Commercial´ in the *City of Morgan Hill General Plan* and a zoning designation of `PUD (HC)´ in the *City of Morgan Hill Planning and Zoning Code*. The *City of Morgan Hill General Plan* designates the project site as the location of a sub-regional commercial site. The project site has been designated for urban uses in the City of Morgan Hill General Plan since 1969 (Personal communication with Rebecca Tolentino, Associate Planner, City of Morgan Hill, April 7, 2005). Therefore, the proposed project would not conflict with zoning for an agricultural use.

None of the parcels at the project site are currently under a Williamson Act contract. A parcel located north of the project site, currently being used for greenhouse production, is under a Williamson Act contract (Personal conversation with Frank Giordano, County Of Santa Clara Assessors Office, December 2004 and May 2005). However, due to distance and nature of the agricultural use of this property, the proposed project would not conflict with the Williamson Act contract. Therefore, the proposed project would not conflict with an existing Williamson Act contract. No mitigation measures are necessary.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Loss of Farmland

Impact 3.2-3 The proposed project would convert approximately 66.49 acres of agricultural land to urban uses. This loss would contribute to the cumulative loss of farmland in the region. This considered a **less than significant cumulative impact.**

The County of Santa Clara has experienced a ten percent decrease (3,192 acres) in the amount of `Prime Farmland´ between 1998 and 2002 from the conversion of farmland to urban uses (DOC 2002). The proposed project would contribute to the on-going conversion of prime agricultural land in Santa Clara County to urbanized uses by converting approximately 66.49 acres of agricultural land to commercial uses. Based on the California Agricultural LESA model, the conversion of the agricultural land at the project site is considered a significant and unavoidable impact. The proposed project would therefore contribute to the cumulative conversion of farmland to urban uses. However, the majority of agricultural acreage in Santa Clara County is located in unincorporated areas where there are strong land use policies to preserve this unincorporated agricultural land. Therefore, the proposed project's contribution to the cumulative loss of agricultural land in the region would be considered **less than significant.**

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